



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2015-1937; Directorate Identifier 2014-SW-067-AD;**

**Amendment 39-18171; AD 2015-11-08]**

**RIN 2120-AA64**

**Airworthiness Directives; Agusta S.p.A. (Agusta) Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule; request for comments.

**SUMMARY:** We are superseding airworthiness directive (AD) 2014-02-08 for Agusta Model A109C, A109S, A109K2, A109E, and AW109SP helicopters. AD 2014-02-08 required inspecting the lock wires securing the tail rotor (T/R) duplex bearing locking nut (locking nut) to determine whether any lock wires are missing or damaged. This AD retains some of the requirements of AD 2014-02-08 but removes the terminating action, expands the applicability, and adds a daily pilot check. This AD was prompted by reports of loosening T/R locking nuts. These actions are intended to prevent failure of the T/R and subsequent loss of control of the helicopter.

**DATES:** This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

We must receive comments on this AD by [INSERT DATE 60 DAYS AFTER

DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.
- Fax: 202-493-2251.
- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.
- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the European Aviation Safety Agency (EASA) AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this AD, contact AgustaWestland, Product Support Engineering, Via del Gregge, 100, 21015 Lonate Pozzolo (VA) Italy, ATTN: Maurizio D’Angelo; telephone 39-0331-664757; fax 39-0331-664680; or at <http://www.agustawestland.com/technical-bulletins>. You may review the referenced

service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

**FOR FURTHER INFORMATION CONTACT:** Martin Crane, Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email [martin.r.crane@faa.gov](mailto:martin.r.crane@faa.gov).

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and an opportunity to provide your comments prior to it becoming effective. However, we invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that resulted from adopting this AD. The most helpful comments reference a specific portion of the AD, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit them only one time. We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this rulemaking during the comment period. We will consider all the comments we receive and may conduct additional rulemaking based on those comments.

## **Discussion**

On January 16, 2014, we issued AD 2014-02-08, Amendment 39-17736 (79 FR 5257, January 31, 2014) for Agusta Model A109C, A109S, and A109K2 helicopters, and certain serial-numbered Model A109E and AW109SP helicopters. AD 2014-02-08 required repetitively inspecting the lock wires securing the T/R locking nut to determine whether any lock wires are missing or damaged, installing a second lock wire if only one was installed, and reassembling the housing and slider group of the T/R rotating controls as terminating action for the inspections. AD 2014-02-08 was prompted by reports of loosening T/R locking nuts. Those actions are intended to prevent failure of the T/R and subsequent loss of control of the helicopter.

AD 2014-02-08 was prompted by AD No. 2012-0195-E, dated September 24, 2012, and corrected September 25, 2012, issued by EASA, the Technical Agent for the Member States of the European Union, to correct an unsafe condition for certain Agusta Model A109E, A109LUH, A109S, AW109SP, A109C, and A109K2 helicopters. EASA advised of the T/R locking nut loosening on Model A109 helicopters and that one or both of the lock wires securing the locking nut were either damaged or absent from the T/R. EASA states that this condition could lead to failure of the T/R function and subsequent loss of control of the helicopter. AD No. 2012-0195-E requires repetitively inspecting the lock wires and removing and reassembling the housing and slider group of the T/R rotating controls, which is terminating action for the inspections.

## **Actions Since AD 2014-02-08 Was Issued**

Since we issued AD 2014-02-08 (79 FR 5257, January 31, 2014), a failure of a T/R duplex bearing ring nut installation occurred after the housing and slider group of the

T/R rotating controls had been reassembled. Therefore, we are superseding AD 2014-02-08 to remove the reassembly as terminating action. Because of additional reports of the loosening of the bearing locking nut and the increased risk of failure of a lock wire, we are retaining the 25-hour TIS inspection. We are also requiring a daily pilot check to enhance detection of a failure of a T/R duplex bearing ring nut installation. AD 2014-02-18 did not apply to certain serial-numbered helicopters because the terminating action had already been performed on those models. Because we have determined that the terminating action does not correct the unsafe condition, we have expanded the applicability to include all serial-numbered helicopters for the Model A109C, A109S, A109K2, A109E, and AW109SP. EASA has not changed any of the requirements in its AD, and Agusta has not revised its service information.

We have also corrected the design holder's name from AgustaWestland S.p.A. to Agusta S.p.A., as specified by the current FAA type certificate.

#### **FAA's Determination**

These helicopters have been approved by the aviation authority of Italy and are approved for operation in the United States. Pursuant to our bilateral agreement with Italy, EASA, its technical representative, has notified us of the unsafe condition described in its AD. We are issuing this AD because we evaluated all known information provided by EASA and determined that an unsafe condition is likely to exist or develop on other helicopters of these same type designs.

#### **Related Service Information**

Agusta issued Bollettino Tecnico (BT) Nos. 109-134, 109EP-121, 109S-48, 109K-54, and 109SP-051, all dated September 21, 2012, for Model A109C, A109E,

A109S, A109K2, and AW109SP helicopters. These BTs specify inspecting for the presence and condition of the two locking wires. The BTs also specify if one lock wire is present and no damage is reported, installing a second lock wire. The BTs specify if one or both of the lock wires are damaged, removing and disassembling the housing and slider group of the T/R controls.

### **AD Requirements**

This AD expands the applicability to include all serial-numbered helicopters. This AD retains the initial and repetitive inspections required by AD 2014-02-08 (79 FR 5257, January 31, 2014) and retains the requirement to remove and reassemble the housing and slider group of the T/R rotating controls if one or both lock wires are damaged. This AD also requires a daily pilot check of each lock wire securing the T/R locking nut. An owner/operator (pilot) may perform the required visual check and must enter compliance with the applicable paragraph of the AD into the helicopter maintenance record in accordance with 14 CFR 43.9(a)(1) through (4) and 14 CFR 91.417(1)(2)(v). A pilot may perform this check because it involves only looking at the visible area of the lock wire securing the T/R locking nut to the housing. This check is an exception to our standard maintenance regulations.

### **Differences Between this AD and the EASA AD**

This AD requires a daily pilot check of the lock wire, while the EASA does not. The EASA AD requires removing and reassembling the housing and slider group of the T/R rotating controls as terminating action, regardless of whether the lock wire is damaged, and this AD does not. The EASA AD applies to certain serial-numbered helicopters, and this AD applies to all serial-numbered helicopters of each model.

**Interim Action**

We consider this AD to be an interim action. If final action is later identified, we might consider further rulemaking then.

**Costs of Compliance**

We estimate that this AD affects 122 helicopters of U.S. Registry. We estimate that operators may incur the following costs to comply with this AD. The average labor rate is estimated to be \$85 per work-hour. Inspecting the lock wire takes about 0.25 work-hour, and the required parts cost is negligible, for a cost per helicopter of \$22 and a total cost to U.S. operators of \$2,684 per inspection cycle. Removing and reassembling the housing and slider group of the T/R rotating controls requires about 8 work-hours for a cost per helicopter of \$680.

**FAA's Justification and Determination of the Effective Date**

Providing an opportunity for public comments prior to adopting these AD requirements would delay implementing the safety actions needed to correct this known unsafe condition. Therefore, we find that the risk to the flying public justifies waiving notice and comment prior to adopting this rule because the previously described unsafe condition can adversely affect the controllability of the helicopter. Since cases of loosening of the T/R duplex bearing locking nut continue to occur, we are requiring a daily pilot check, which must be performed within 24 hours.

Since an unsafe condition exists that requires the immediate adoption of this AD, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in less than 30 days.

## **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify that this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and



4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing AD 2014-02-08, Amendment 39-17736 (79 FR 5257, January 31, 2014), and adding the following new airworthiness directive (AD):

2015-11-08 **Agusta S.p.A. Helicopters (Agusta)**: Docket No. FAA-2015-1937; Amendment 39-18171, Directorate Identifier 2014-SW-067-AD.

#### **(a) Applicability**

This AD applies to Agusta Model A109C, A109S, A109K2, A109E, and AW109SP helicopters, certificated in any category.

**(b) Unsafe Condition**

This AD defines the unsafe condition as a missing or broken lock wire securing the tail rotor (T/R) duplex bearing locking nut (locking nut). This condition could result in loosening of the locking nut, failure of the T/R, and subsequent loss of control of the helicopter.

**(c) Affected ADs**

This AD supersedes AD 2014-02-08, Amendment 39-17736 (79 FR 5257, January 31, 2014).

**(d) Comments Due Date**

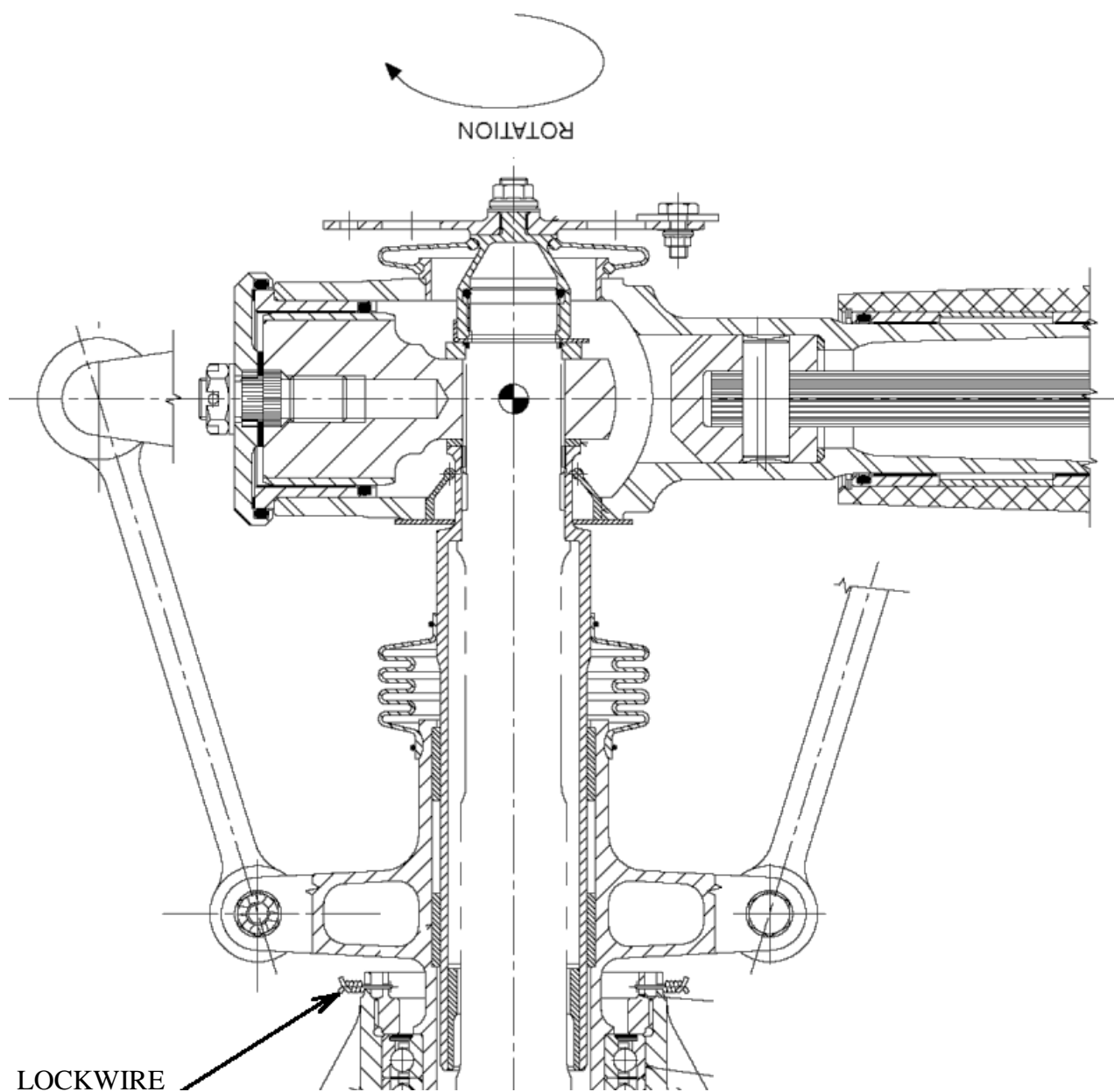
We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

**(e) Compliance**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(f) Required Actions**

(1) Within 24 hours and thereafter before the first flight of each day or at intervals not exceeding 24 hours, whichever occurs later, check each lock wire securing the T/R locking nut to the housing. The location of the housing wire is depicted in Figure 1 to paragraph (f)(1) of this AD.



**Figure 1 of paragraph (f)(1)**

(2) The actions required by paragraph (f)(1) may be performed by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into the aircraft records showing compliance with this AD in accordance with 14 CFR 43.9(a)(1) through (4) and 14 CFR 91.417(1)(2)(v). The record must be maintained as required by 14 CFR §§ 91.417, 121.380, or 135.439.

(3) Within 5 hours time-in-service (TIS) and thereafter at intervals not to exceed 25 hours TIS, inspect each lock wire securing the T/R locking nut to the housing.

(4) If one or both lock wires are missing or damaged, before further flight, remove and reassemble the housing and slider group of the T/R rotating controls.

**(g) Special Flight Permit**

Special flight permits are prohibited.

**(h) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Martin Crane, Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email [martin.r.crane@faa.gov](mailto:martin.r.crane@faa.gov).

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

**(i) Additional Information**

(1) Agusta Bollettino Tecnico (BT) Nos. 109-134, 109EP-121, 109S-48, 109K-54, and 109SP-051, all dated September 21, 2012, which are not incorporated by reference, contain additional information about the subject of this AD. For service information identified in this AD, contact AgustaWestland, Product Support Engineering, Via del Gregge, 100, 21015 Lonate Pozzolo (VA) Italy, ATTN: Maurizio D'Angelo; telephone 39-0331-664757; fax 39-0331-664680; or at <http://www.agustawestland.com/technical-bulletins>. You may review a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2012-0195-E, dated September 24, 2012, and corrected September 25, 2012. You may view the EASA AD on the Internet at <http://www.regulations.gov> in Docket No. FAA-2015-1937.

**(k) Subject**

Joint Aircraft Service Component (JASC) Code: 6400 Tail Rotor System.

Issued in Fort Worth, Texas, on May 26, 2015.

Lance T. Gant,

Acting Directorate Manager, Rotorcraft Directorate,  
Aircraft Certification Service.

[FR Doc. 2015-13845 Filed: 6/8/2015 08:45 am; Publication Date: 6/9/2015]